

CLAIMS

1. A freely shapeable, curable paste containing small mineral hollow microspheres, an inorganic/organic binder or a mixture of such binders and fibers, characterized in that mineral hollow microspheres are used.

2. The paste according to claim 1, characterized in that the average grain size (diameter) of the hollow microspheres is of 5 mm to 500 mm and preferably of 20 mm to 300 mm and especially preferred of 50 mm to 150 mm.

3. The paste according to claim 1, characterized in that the hollow microspheres consist of glass, ceramics or fly ash and particularly include an inert gas.

4. The paste according to claim 1, characterized in that the paste contains a mixture of hollow microspheres with differently high melting points.

5. The paste according to claim 1, characterized in that polysiloxane and especially preferred a polysiloxane emulsion is used as binder.

6. The paste according to claim 1, characterized in that an uniform type of fibers or a mixture of different fibers, preferably mineral fibers is used, particularly glass fibers, glass

wool, mineral wool, ceramic fibers, carbon fibers and/or aramid fibers.

7. The paste according to claim 1, characterized by the following composition

5 hollow microspheres: 10 - 80% by weight, preferably 30 -
 75% by weight,
 fibers: 3 - 20% by weight,
 binders: 3 - 25% by weight (active agent),
 wetting agents: 0.01 - 1% by weight,
10 antifoaming agents: 0.01 - 2% by weight,
 balance: water.

8. Use of the paste according to one of claims 1 to 7
for fire protection and/or for thermal insulation, particularly as
filling composition or sprayable or spreadable material for the
15 sealing of hollow chambers, for the filling of wall areas or for
 spraying on wall areas and/or in machine construction for the
 insulation of places that are hard to access or asymmetric and/or
 for thermal insulation and fire barriers of inlets in fire walls,
 such as pipe and cable inlets.

20 9. The use of the Paste according to one of claims 1 to
7 as freely shapeable material for the production of shaped parts
for elevated application threshold temperatures, particularly in
the core-shooting process, by free forming and by pressing.

10. A shaped part for elevated application threshold temperatures containing hollow microspheres, fibers and an inorganic binder or a mixture of such binders, characterized in that it contains mineral hollow microspheres and was preferably produced by shaping and curing of a paste containing one of these ingredients and water, particularly a paste according to one of claims 1 to 7.

11. The shaped part according to claim 10, characterized in that it is formed as an insulating layer for elevated application threshold temperatures, particularly in form of boards for fire doors and fire walls in building construction and ship building, for technical insulation, for the selective insulation of electric switches, power sockets, lamps and suchlike, for fields of application with shock-like temperature changes, particularly in foundry technology as inner lining for high-temperature kilns.

12. The shaped part according to claim 10 or 11, characterized in that its density is of 50 kg/m³ to 500 kg/m³, particularly of 100 kg/m³ to 250 kg/m³.

13. The shaped part according to claims 10 to 12, characterized in that the cured shaped part contains more than 80% by weight, particularly about 90% by weight of hollow microspheres.

14. The shaped part according to claims 10 to 12, characterized in that it is designed as a shaped part for metal casting, particularly as a feeder sleeve.